Understanding Styles of Corporate Compliance with Environmental Regulation: Towards a Multidimensional Conceptual Framework

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Abstract
This research applies the convergent insights of regulatory compliance and resource-dependence perspective to build a systematic framework of corporate compliance style (CCS thereafter). We use environmental regulation as the context of corporate compliance, and link corporate compliance with the levels of regulatory certainty and organizational nonmarket capabilities. We further develop a two dimensional model of CCS, based on which four scenarios of CCS are proposed, namely formalism, accommodation, referencing and self-determinism. We also discuss the applicability of our framework in a wide array of regulatory domains. This study hence extends the traditional compliance studies and provides a new perspective for the understanding of specific mechanisms that impact compliance behavioral patterns.
Introduction

In recent years, industrial pollution control has been an urgent regulatory task in both developed and developing countries, and what cannot be ignored is that many polluting firms are still at the threshold of minimum compliance or even in non-compliance. Thus, increasing scholarly attention has been paid to the understanding of corporate compliance with environmental regulations, and existing literature on regulatory enforcement and corporate management has developed various typologies of organizational responses to the natural environment (Aragón-Correa & Sharma, 2003; Christmann, 2004; Henriques & Sadorsky, 1999; Hunt & Auster, 1990) or external demands (Oliver, 1991). One limitation of existing literature is that the classification of organizational responses is performance-oriented and often conceptualized as a continuum from non-compliance to over-compliance. Notably lacking from the literature, nevertheless, is the explicit attention to (1) whether there exist diversified complying styles in response to regulatory requirements, and (2) how these styles are formed in different institutional environment.

To investigate the above two research questions, we propose a conceptual framework of corporate compliance style (hereafter, we use the abbreviation CCS to stand for corporate compliance style) in the context of corporate environmental management. The rationale underlines the concept of CCS, as suggested by institutional theory (Meyer & Rowan, 1977), is that firms are always struggling to make a balance between maintaining internal efficiency and seeking external legitimacy. Though the question of resolving conflict between organizational legitimacy and efficiency has been central to institutional theory since 1970s, it is relatively unfamiliar in the environmental regulatory literature. We posit in this study that perceived regulatory certainty influences the cost-efficiency of corporate compliance, while organizational capability influences the extent firms can gain regulatory legitimacy. Hence under different external and internal conditions, organizations are likely to form different complying styles towards regulation.

To propose a generic framework that allows careful consideration of how distinctive CCSs are formed in different scenarios, we draw upon theories of regulatory
compliance and resource-based perspective. Different from previous performance-oriented studies that categorize firms based on a single axis of outcome, we argue that regulatory certainty and organizational nonmarket capabilities are closely aligned in shaping CCS of a regulated firm. Thus, we focus on the behavioral diversity of regulatees and propose four scenarios of CCS, namely formalism, accommodation, referencing and self-determinism. The integrated framework helps us better understand the determinants of corporate compliance and ultimately the complying performance.

The paper is organized as follows. We start with a general discussion about the dilemma faced by regulated firms to secure both internal efficiency and external legitimacy. Based on the review of literature on regulatory enforcement and corporate strategy, we develop an X-Y framework that integrates the two lines of literature into a set of combined conditions for corporate compliance. Then we propose four CCS scenarios that are shaped by different conditions of regulatory certainty and non-market capability. This paper concludes with a discussion about the research and practical implications of our CCS framework.

**Literature Review**

The relationship between regulation and corporate compliance has been widely studied (Burby & Paterson, 1993; Gunningham, Thornton, & Kagan, 2005; May, 2005; Paternoster et al., 1983; Winter & May, 2001). A substantial theoretical and empirical literature has investigated the economic, political, social and psychological bases of corporate compliance (Henriques & Sadorsky, 1999; Shimshack & Ward, 2005; Wang & Jin, 2007). Regulatory scholarship in recent years has dig deeper into the external constraints of corporate compliance, such as information availability and transmission (Darnall, 2010; Koski & May, 2006; Lee, 2010), and regulatory enforcement styles that affect compliance outcome (Lo & Fryxell, 2003; May & Wood, 2003). In the management research field, various typologies of organizational responses to the natural environment (Aragón-Correa & Sharma, 2003; Christmann, 2004; Henriques & Sadorsky, 1999; Hunt & Auster, 1990) or external demands (Oliver, 1991) have been developed. For instance,
Oliver (1991) posits five increasingly active levels of organizational resistance ranging from acquiescence to political manipulation to given institutional demands. Table 1 presents three frameworks of general categorization schemes of firms’ approaches towards natural environment or external demands developed in environmental management literature and strategic literature.

Table 1 Conceptual Classification of Firms’ responses towards external pressure

<table>
<thead>
<tr>
<th>Environmental Management Literature</th>
<th>CSR Literature</th>
<th>Strategy Management</th>
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<tbody>
<tr>
<td>Noncompliance</td>
<td>Beginner</td>
<td>Reactive</td>
</tr>
<tr>
<td>Compliance</td>
<td>Firefighter</td>
<td>Defensive</td>
</tr>
<tr>
<td>Compliance plus</td>
<td>Concerned citizen</td>
<td>Accommodative</td>
</tr>
<tr>
<td>Commercial and environmental excellence</td>
<td>Pragmatist</td>
<td>Proactive</td>
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<tr>
<td>Leading edge</td>
<td>Proactivist</td>
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However, existing research has remained relatively silent regarding the diversity of behavioral patterns (rather than performance) of regulated firms during the complying process. More recently, Lynch-Wood and Williamson (2010) suggested that it is in urgent need to further understand how regulated firms actually behave, and whether distinctive compliance orientations were shaped under the synthetic effect from resource availability, visibility and moral orientation. Given the fact that existing literature has mainly focused on compliance performance and motivations rather than behavioral process, we do need a deeper understanding of how regulated businesses differ in selecting complying approaches.

A central argument of neoinstitutional theory is that “categorical rules conflict with the logic of efficiency” during the isomorphism process (Meyer & Rowan, 1977). Firms under environmental regulation have always been trapped in a dilemma that complying
activities satisfying regulatory rules are pure costs from the point of view of efficiency. For instance, an introduction of latest environmental practice brings an environmental-friendly reputation in the global market. Nevertheless, the short-term profit or improved productivity might be hampered. In addition, how these difficulties were dealt with by regulatees has received little research attention. In this study, we want to address this issue by studying how firms’ perceived regulatory certainty and non-market capabilities may determine the adoption of certain CCS in order to alleviate this conflict.

**Regulatory Certainty**

Corporate compliance can be treated as a decision problem constrained by regulatory uncertainties. Khanna (1997) noted that “...not only does the state intervene extensively in business operations, but companies also have a hard time predicting the actions of regulatory bodies”. Indeed, most decision problems are not deterministic but involve decision making under uncertainty or complexity (Williamson, 1975). Regulatory uncertainty has been commonly considered when assessing the regulations’ benefits and cost (Jaffe & Stavins, 2007). From economists’ perspective, regulatory uncertainty affect corporate compliance effort ranging from minimal compliance that saves room for future regulatory trimming (Baumol & Oates, 1988), to over-compliance in anticipation of tighter future regulations (Arora & Cason, 1995) or in fear of unintentional noncompliance (Heyes, 1998). Management scholars, who treat environmental uncertainty as a fundamental challenge to business decisions, have investigated its effects on organizations for many years (Lawrence & Lorsch, 1967; Miles & Snow, 1978; Miller, 1993; Milliken, 1987). A few empirical studies have examined the relationship between regulatory uncertainty and organizational actions (Cook et al., 1983; Hoffmann & Trautmann, 2006; Hoffmann, Trautmann & Hamprecht, 2009; Koski & May, 2006). Previous studies suggest that environmental uncertainty is a significant factor that affects organizations’ conformity or resistance to institutional demands and expectations (DeHart-Davis & Bozeman, 2001; Oliver, 1991). However, existing studies of organizational perceptions of uncertainty are usually conducted in the context of specific act, and they focus primarily on the relationship between organizational perceptions and regulatory effectiveness. For instance,
among the very few studies about the antecedents of complying styles, Edelman and Petterson (1991) investigated how ambiguity of EEO/AA law affects affirmative action officers’ working style in employment issues. On the other hand, most of the prior researches mainly studied newly promulgated regulation or those possible in the future, such as greenhouse gas issues. Some research attention had turned to investigate whether and how uncertainty of environmental regulations of CO2 emission will influence business strategies on investment (Patino – Echeverri et al., 2008). Nevertheless, we still know little about whether and how regulatory uncertainty influences corporate compliance behavior, and thus this issue deserves continuing attention (Scheytt et al., 2006).

A low level of regulatory certainty may stem from several aspects. Firstly, regulatory information is not effectively transmitted to regulated firms (Koski & May 2006; Lee, 2011), and thus even the existing regulation and its enforcement might be perceived as unclear by regulatees. Furthermore, regulation sometimes is ambiguous or complex, and it is difficult for firms to determine which regulation they are subject to (DeHart-Davis & Bozeman, 2001) and whether they understand it in a right way. Secondly, regulations change overtime, which also leads to regulatory uncertainty (Cook et al., 1983; Hoffmann et al., 2008). Lastly, the lack of coordination among different regulatory agencies (Cook et al., 1983) as well as contradictory regulatory system itself may create uncertainty.

In this study, we define regulatory certainty as business decision makers’ perception of explicitness of formal regulations, policies and its enforcement. Following Hoffmann and others’ classification of regulatory uncertainty (2008), in our study organizations’ perception of regulatory certainty includes basic directions, implementation process and interdependence. Since firms’ decisions are driven by their perception rather than reality (Ashill & Jobber, 2010; Hambrick et al., 2005; Hoffmann et al., 2009), we focus on the perceptual aspect of regulatory certainty in our discussion.

**Nonmarket Capabilities**

Corporate compliance can be also studied through the natural-resource-based view (NRBV) of firm (Hart, 1995; Wernerfelt, 1984). The fundamental principle of the NRBV perspective is that the basis for competitive advantages lies primarily in the application of a
bundle of valuable resources and capabilities (Barney, 1991; Sharma & Vredenburg, 1998). In other words, the resource-based view addresses the fit between what a firm is capable of and what it has the opportunity to do (Russo & Fouts, 1997). Resources can be generally grouped into three types, namely tangible, intangible and personnel-based (Grant, 1991). Regarding regulatory compliance, tangible resources include financial reserves and physical resources such as pollution control equipments. Intangible resources, or termed as “non-market capabilities” (Dean & Brown, 1995; Hillman & Hitt, 1999) in organizational strategy literature, include tacit and non-tacit knowledge and skills that enable firms to manage the public policy process and achieve favorable policy outcomes (Bonardi, Holburn, & Vanden Bergh, 2006).

Building on resource-based perspectives, prior studies on corporate political strategies suggest that nonmarket capabilities are unevenly distributed among firms and that firms with such nonmarket capabilities should be more effective in influencing public policies (Baron, 2003; Bonardi, Holburn, & Vanden Bergh, 2006; Hansen & Mitchell, 2000; Hillman et al., 2004; Keim & Baysinger, 1988). Furthermore, organizational capability in terms of political acumen to influence public policies (Russo & Fouts, 1997) is inimitable and valuable to neutralize, promote, or otherwise manage external constituencies. Hence, we posit that the non-market capabilities a firm possesses may influence its approaches to secure regulatory legitimacy.

Non-market capabilities in terms of relationship with politics and bureaucrats can both work for and against compliance. On the one hand, firms with high level of capabilities will be in a good position to gain political attention, and sufficient regulatory information channels could greatly reduce the information searching cost during compliance process. For instance, Wang et al. (2003) found that in China firms from the private sector appear to have less bargaining power than state-owned enterprises with local environmental authorities pertaining to the enforcement (collection) of pollution charges. Hence companies with a high level of these resources are supposed to enjoy a higher level of discrepancy in choosing the specific complying approach. On the other hand, a close
relationship or dependence on government and agencies also suggest that organizations might need to satisfy additional political need during the process of compliance.

**An Integrative View**

In recent corporate environmental studies, some combinative views have emerged (Bansal, 2005; Child & Tsai, 2005; Delmas & Montes-Sancho, 2010; Etzion, 2007). For instance, Bansal (2005) found that institutional and resource-based factors contribute differently in different stage of corporate sustainable development. Delmas and Montes-Sancho (2010) complemented the corporate political strategy literature with institutional theory to analyze the determinants of participation in voluntary programs. The investigation of corporate compliance may also be addressed within a framework that takes account both regulatory perspectives and corporate strategy viewpoints. However, the integrative influence of the above two on corporate compliance has not received sufficient research attention. Among the very few studies, Aragón-Correa and Sharma (2003) suggest that environmental uncertainty moderates the relationship between the organizational resources/capabilities and proactive environmental strategies. Rugman and Verbeke (1998) developed a resource-based perspective on the impact of environmental regulation on firms. They further categorized the impact of regulation on firms into “conflicting” and ”complementary”, and managerial response into “static” and “dynamic”. Nevertheless, this work only studies the corporate strategy implications of formal environmental regulation instead of various informal ones.

An integrative framework that embraces the above two literature may be necessary. Researchers such as Oliver (1991) and Hoffman (2001) suggest that corporate behavior is often shaped by the strategic interplay between internal and external constraints. On the one hand, environmental state uncertainty is found to widen the gap between resource-based action and action in response to institutional pressure (George et al., 2006). On the other hand, RBV theorists stress the organizational necessity of adapting to environmental uncertainty as well as managing resource flows (Pfeffer & Salanick, 1978). This research hence highlights the necessity to investigate not only the relative importance
of organizational and public policy forces, but also how the forces reinforce each other, and the processes by which they effect change.

Based on the review of existing literature, we argue that corporate compliance is constrained by two major factors. First, corporate compliance behavior is influenced by perceptions of external regulatory environment. Upon several features of external environment, perceived regulatory certainty might be the most important element that shapes compliance patterns while others such as regulatory severity may have more to do with compliance outcomes. Second, firms’ complying decisions are based on their resource availability. There is no doubt that different environmental resource endowment, in particular the so called non-market capabilities could facilitate or inhibit certain compliance decision-making. Other internal factors, such as top management attitude and commitment, are more likely to influence ultimate performance rather than the working style formed during the complying process. We will further analyze the impacts of the levels of regulatory certainty (RC) and non-market capabilities (NC) on CCS. To make it simple, we assume that there are two levels for each dimension: low and high.

- **Low RC**

  Literature on corporate environmental decision-making facing uncertainty falls into two categories. Some researchers argue that decision makers facing a high level of uncertainty apply a wait-and-see strategy and delay investments until they have better planning reliability (Marcus, 1981; Yang, 2005). This stream of literature is contrasted by an increasing number of studies (Aragón-Correa & Sharma, 2003; Doh & Pearce, 2004; Hoffmann, Trautmann & Hamprecht, 2009), arguing that decision makers do not necessarily postpone investment decisions in the light of uncertainty and can even benefit from investments if they gain a first-mover advantage.

  When the regulatory certainty level is low, adapting to new situations becomes increasingly difficult and costly. Organizations would found it difficult to make decisions and hence may wait and see until there are explicit models or signals to follow. According to institutional theory, firms are likely to mimic others’ behavior under this circumstance
Milliken (1987) further indicates that an imitating behavior is likely to take place when response uncertainty is perceived by decision-makers. Our proposition hence is consistent with this argument that a referencing style is likely to form when perceived RC is low. When a firm has low level of nonmarket capabilities, a better approach is to refer to the behavior of peer companies. Firms with fewer resources are more likely to adopt a referencing compliance style, due to fewer channels to available options. However, if firms possess sufficient nonmarket capabilities to comply, they are more likely to respond to the demand of external identities such as politicians and bureaucrats. Accommodation compliance style can be similar to the modes of strategic thinking of “muddling through” (Lindblom, 1959) or “garbage can model” (Cohen et al., 1972), as the emergence of demanding identities is non-normal and may vary among areas and industries. Through this differentiation it is expected to make a distinction between a passive imitation approach and an adaptable way in response to environmental regulation.

- **High RC**

For firms with limited nonmarket capabilities, an optimal solution to gain regulatory legitimacy is to rigorously follow what the regulation on book explicitly requires. Nevertheless, if firms are equipped with a high level of resources/ capabilities to deal with environmental issues, they have greater freedom. Thus, they could be either more innovative in complying with regulations or more likely to utilize their resources to evade regulation. In this way firms are capable of shifting among different approaches to gain legitimacy at their freedom while avoiding unnecessary cost from certain environment.

- **Low NC**

In certain regulatory environment, firms with limited resources only need to follow formal regulatory rules and treat them as complying benchmarks. Using traditional procedures and routines to control uncertainty and ambiguity has been perceived as an institutional response to risk (Bozeman, Reed, & Scott, 1992). When perceived regulatory certainty is low, firms will follow peer practices to reduce transaction cost in compliance. An information cascade is likely to occur if less informed companies choose
to follow others’ behavior because they think the others are more knowledgeable (Bikhchandani, Hirshleifer, & Welch, 1992).

- **High NC**

  For firms with sufficient resources, they might be actively engaged in satisfying closely related external identities’ demand (or labeled as formal regulation) on environmental protection if perceived regulatory certainty is low. Nevertheless, they may have more discretion in making complying decisions if perceived regulatory certainty is high. Otherwise it might be safer to respond to explicit environmental demands from the external environment. Both compliance styles portray a flexible approach towards regulation. The difference is that the former one stresses an “always free” style while the latter emphasizes a “firefighter” compliance style that deals with emergent demands from time to time. Some studies of Chinese managers suggest that they share a common concern for security and are likely to avoid proactive and risk-taking decisions when faced with uncertain environments (Adler et al., 1992; Tan & Litschert, 1994). Previous studies on deregulation found that increased complexity and dynamism will result in companies’ selection of shorter-term and less risky strategies (Birnbaum, 1984).

**CCS: Definitions and Scenarios**

In the regulation literature, regulators’ features have been widely studied in terms of regulatory policy making and enforcement style (Kagan, 2001; Kagan & Axelrad, 2000; Kelman, 1981; Lo & Fryxell, 2003; May, 2004; McAllister, 2010; Melnick, 1983). The regulatory enforcement literature, for instance, contains a wide variety of works to examine whether and how distinctive enforcement styles of regulators influence regulatory effectiveness (Bardach & Kagan, 2002; Lo & Fryxell, 2005; McAllister, 2010; Van Rooij, 2010). Regarding the response to enforcement, regulated businesses are also likely to form different styles or approaches during the compliance process. One of the pioneering works that conceptualize the nature of organizational responses to regulation is Cook and others’ theory building paper in 1986, integrating adaptation and mutual selection perspectives
(Cook et al., 1983). A hierarchical ordering of organizational responses at institutional, managerial and technical levels is classified in this study. Nevertheless, there are very limited researches on whether regulatees differ in their behavioral patterns in complying with environmental regulations. Through an operationalization of firms’ compliance styles toward environmental regulation, this study tries to explore how this concept can be adapted to be more analytically useful in understanding the process of corporate compliance.

**Corporate Compliance Style Defined**

Firms in a wide range of sectors are regulated by government agencies that establish, monitor, and enforce administrative rules on an array of policy dimensions (Buchholz, 1990). Compliance is a process through which regulated actor abides by law. It is also something normative that there should be compliance, and the goal of relevant laws and enforcement is to ensure regulated actors should be aware of and take steps to comply with laws and regulations. With managerial attention being focused on seeking the best possible solution, only the complying approach that is in line with organizational situation will be selected (Etzion, 2007; Oliver, 1991). Moreover, regulated firms establish codified or uncodified practices that reflect prior managerial approaches to comply (Boddewyn & Brewer, 1994). Hence in this study we define CCS as the general approach that regulated actors form during the complying process.

The proposed four categories of CCSs below are supposed to capture most of the typical compliance patterns that have been identified in the existing literature (Aragón-Correa & Sharma, 2003; Christmann, 2004; Hansen & Mitchell, 2000; Henriques & Sadorsky, 1999; Oliver, 1991). With the essential goal of being legitimate in an economic way, companies differ in their styles (approaches) in dealing with environmental regulation, ranging from simply following rules on book, to being independent and discretionary in making environmental decisions. This categorization assumes that firms need to maximize its profit while seeking legitimacy through regulatory compliance. Table 2 provides a summary of the main characteristics and corresponding cases of the
conceptualized four CCSs, namely formalism, accommodation, referencing, and self-determinism. Details of each scenario will be discussed in the following section.

**Four Scenarios of CCS: A 2×2 Model**

Previous research normally perceive organizations’ willingness and capability as the conditions of either compliance (May, 2005) or resistance (Olive, 1991). In other words, organizations need to balance with conflicting external constituents, as well as inconsistencies between institutional expectations and internal organizational efficiency. For instance, Oliver (1991) identified five institutional factors that determine the choice of corporate strategy towards institutional requirements, including cause, constituents, content, control, and context. Nevertheless, very limited attention has been paid to the interactions of these factors. In this study, we posit that the interwoven condition of perceived regulatory certainty and internal capacity determine the specific CCS that an organization can adopt. More specifically, we develop a four scenario model of CCS based on the considerations of firms’ perceived regulatory certainty and nonmarket capabilities possessed (see Figure 1). In each scenario we suppose that the corresponding CCS is in an organization’s best interest under specific conditions.
Table 2: Four scenarios of corporate compliance style in environmental regulation

<table>
<thead>
<tr>
<th>Features</th>
<th>Formalism</th>
<th>Accommodation</th>
<th>Referencing</th>
<th>Self-determinism</th>
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<td></td>
<td><strong>Rule compliance</strong>: adhering to rigid on-book formal rules and procedures and use them as sole compliance benchmark.</td>
<td><strong>Political compliance</strong>: actively respond to and deal with concrete demands of political and bureaucratic powers.</td>
<td><strong>Learning compliance</strong>: either conscious or unconscious imitation of others’ complying behaviors.</td>
<td><strong>Discretionary compliance</strong>: an organic and independent either satisfy or evade regulations</td>
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Figure 1: An Integrative Model of CCSs
Scenario I——— Formalism: NC_LRC_H

In this scenario, a company perceives a high level of regulatory certainty and a low level of nonmarket capabilities. Under this circumstance, regulated companies simply follow what the regulation asks, but they are less likely to be innovative or to integrate informal regulatory requirements as investments for the latter is not affordable. For instance, Paulsson and von Malmborg (2004) report that in the case of the European Emission Trading Scheme, “ambiguous government policies are claimed to prevent the companies from making long-term strategies on climate change mitigation”. For firms without access to other information sources, existing laws and regulations offers clear benchmarks for legitimacy seeking, and hence a safe choice to stay at least in minimum compliance with limited investment.

We argue that a rigid compliance style named “formalism” is likely to be shaped under this condition. Formalism refers to a “go by the numbers” approach that adheres to rigid formal rules and procedures, and firms use them as sole compliance benchmarks, which is the simplest compliance approach, in particular under command-and-control environmental policies. For instance, a formalistic complying firm simply equips pollution abatement devices to assure its COD discharge is below, or for most of the time close to the standard. Overall, firms in a formalistic compliance style will set their goals strictly based on the explicit regulatory language without other considerations. Furthermore, their environmental strategy is most likely to focus on how to better satisfy regulatory standards in a cost-efficient way.

Scenario II ——— Self-determinism: NC_HRC_H

Sirmon et al. (2007) argued that environmental uncertainty in terms of dynamism will affect firms’ resource management in a series of ways, such as bundling resources to build capabilities and leveraging capabilities to provide value to customers. When perceived regulatory certainty is high, firms with high level of nonmarket capabilities are likely to choose either innovative approaches or evasion by utilizing its resources. Because clearly defined regulation and policies as well as their enforcement provide very clear boundaries for the regulated companies, firms
under this circumstance are more flexible to optimize their resources than their lack-of-resources counterparts to meet regulatory standards.

We posit that a discretionary compliance style named “self-determinism” is likely to be formed under the above condition. Self-determinism refers to the use of more organic approaches to comply with or evade from environmental regulation. Prior research has stressed the importance of organizational discretion and decision-making autonomy in organization-environment relations (Cook, 1977; Oliver, 1991). For instance, MNCs were found to adapt their subsidiaries’ environmental conducts to local conditions (Vernon, 1998). Both greater complying efforts such as environmental innovations and evasion of regulations such as Walley and Whitehead (1994)’s view that firms reject environmental pressures may coexist under this circumstance.

In contrast to the other three styles, organizations under this category are more active in promoting their own interest. On the one hand, companies under this category might adopt modern procedures that affiliated by current technology but less employed by competitors inside the industry. For example, joining ISO14001 has been demonstrated as a business favorable environmental approach for firms to pollute less and better comply with governmental regulations (Prakash & Potoski, 2006). On the other hand, previous studies have shown that some organizations do transfer their businesses to loosely regulated countries to avoid complying cost (Eskeland, 2003), or lobby and influence legislation for favorable public policy decisions (Hansen & Mitchell, 2000; Schuler et al., 2002). The “escape” tactic that Oliver (1991) proposed could be classified as one type of this style, that organization reduces the extent of being inspected and scrutinized.

Several other patterns of self-deterministic CCS could be identified in existing literature. Industrial self-regulation as a private decentralized institution (Barnett & King, 2008; Prakash & Potoski, 2006) could be regarded as an extensive form of self-determinism at industrial level. Prior studies suggest that companies construct systems of private regulation in response to incentives, risks, and uncertainties in the
market (King, Lenox, & Barnett, 2002) as well as dealing with negative spill-over effect inside the industry (Barnett & King, 2008). In international business studies, MNCs are also found to behave differently from ordinary companies when under multinational regulations. For example, Christmann’s survey results show that instead of exploit cross-country differences in environmental regulations, multinational enterprises standardize different environmental policy dimensions in response to pressure from different external stakeholders (2004).

Scenario III—— Referencing: NC_R

From the transaction cost view, uncertainty and information impactedness lead to transaction cost (Williamson, 1975). During the complying process, for instance, due to “physical asset specificity”, transaction cost can be incurred if regulatees install certain pollution equipments while regulators required updated technologies in a short period. Consequently, firms with low level of nonmarket capabilities cannot afford the transaction cost if they have a low level of regulatory certainty. One way to reduce the transaction cost is to imitate what others are responding to regulations.

As proposed by institutional theory (DiMaggio & Powell, 1991), mimicry behavior is likely to happen when external environment is uncertain. Meanwhile, firms may be more inclined to imitate others for clues when there is a lack of nonmarket capabilities to receive signals from political identities or satisfy those demands, and a deliberate imitation is more likely to take place than unconscious mimicry behavior in corporate compliance. This would allow firms that lack resources to yield a viable solution towards environmental regulation while minimizing search costs and costs of experimentation.

The referencing CCS we proposed hence refers to either conscious or unconscious imitation of peer companies’ complying means. This may happen either when a firm is trying to be consistent with the market or industrial trend in environmental protection, or simply as a result of its inexperience with certain pollution control issue. On the one hand, it can be mimicry of model organizations’
proactive behavior according to the institutional theory (DiMaggio & Powell, 1991; Scott, 1995). On the other hand, organizations may also follow deficient norms in their institutional environment.

This learning compliance style is defined as “referencing” in our framework. The referencing approach may be a result of calculated judgments about whom to follow and when to follow (King & Lenox, 2000; Kraatz, 1998). For instance, at the early stage of an incentive-based environmental program initiated by the government, some firms may wait and observe whether peer companies are engaged. By learning from others’ experiences, firms can reduce the transaction cost in an uncertain regulatory environment (Bonardi & Kem, 2005; Bonardi, Holburn, & Vanden Bergh, 2006). Nevertheless, sometimes firms are not rationally participating in environmental actions but simply because others are doing that, and thus they were following without rational justification (Abrahamson & Rosenkopf, 1993). Regarding compliance, the former type might be more common in real world since environmental investments normally need deliberate considerations.

**Scenario IV——— Accommodation: NCₜRCₕ**

Organizations are more likely to buffer in public affairs when environmental uncertainty level is high (Meznar & Nigh, 1995). When perceived regulatory certainty is low, firms with close relationship with external institutions may probably choose to reconcile the explicit demands of informal regulators. Previous studies show that due to the inaccessible and complex regulation, firm-level compliance agreements are negotiated by sources, the state, and EPA (Landy, Roberts, & Thomas, 1994). However, a high level of nonmarket capabilities allows firms to meet extra needs of stakeholders such as political leaders, and it is a safe way to stay in compliance when regulation is vague and uncertain. Prior research has suggested that firms that have direct experiences with politicians and regulators can better understand policy makers’ preference (Ring, Lenway, & Govekar, 1990). When regulatory certainty is low, firms with high level of non-market capabilities are more
likely to actively respond to political or bureaucratic willingness, which is defined as “accommodation” in our framework.

Firms under the category of accommodative compliance style try to balance informal regulatory needs that are not stated in the legislation and regulation. For instance, firms might perceive regulatory agencies, rather than legislators, as the central point of contact for responding to the requirement of public policies (Holburn & Vanden Bergh, 2004). Accommodative compliance style is to some extent similar to the “compromise” strategic response proposed by Oliver (1991), which means that regulated enterprises actively respond to important external stakeholders such as politicians and bureaucrats.

A well-established argument in the literature is that regulatory behavior is influenced by political leaders and constituencies (Scholz, 1991; Van Rooij, 2010; WorldBank, 2000). Scholz (1991), for example, show how local enforcement efforts by field officers of the US Occupational Health and Safety Administration (OSHA) were affected by local partisan politics. If political power is able to influence the legislation and enforcement process, there is no doubt it could also affect the perception and hence the compliance approach of regulated business. In one of our previous studies (Liu et al., 2011), for instance, we found that political intervention in different forms help strengthen the effect of regulatory threats on corporate compliance, by alleviating the conflict between organizational legitimacy and efficiency. The political “bridging” in corporate public affairs activities, such as adapting to changing political expectations as suggested by Meznar and Nigh (1995), could be a good example of accommodative complying style.

**DISCUSSION AND RESEARCH IMPLICATION**

In regulatory and organizational studies, researchers respectively recognize the importance of external environment and internal factors in shaping firms’ compliance behavior. An integration of the two strands of theories may enhance our understanding of corporate compliance. We argue that these interactions will actually lead to the development of distinctive corporate environmental compliance styles,
namely formalism, accommodation, reference, and self-determinism. Therefore, organizations with different levels of perceived regulatory certainty and non-market capabilities have different compliance styles.

Edelman and Petterson (1991) concluded that compliance should be understood as a process that evolves over time instead of as a discrete event. Evolving organizational responses to regulations have been examined in recent literature of international business study. For instance, MNCs are found to transit from adapting environmental policies to local country conditions in 1970s and 1980s, to implementing worldwide uniform environmental conducts since 1990s (Christmann, 2004; Dowell, Hart, & Yeung, 2000). In this study, CCS is formed during the process of dealing with regulatory demand, and the compliance process is not over-night. In other words, one should not expect a sudden shift from one scenario of CCS to another, and an evolutionary perspective towards CCS should also be considered. Figure 2 presents how possible shifts between different scenarios may take place.

**Figure 2: Overtime changes of CCSs**

![Diagram of Overtime changes of CCSs](image)
On the one hand, over-time changes could be attributed to shifting regulatory context. This is to some extent consistent with Hoffman’s 4-stage institutional history of chemical industry environmentalism from 1962 to 1993, evolving from the “challenge to the existing institutional order” to “cognitive institution” (Hoffman, 1999). With the progress of industrialization and shifting social consciousness on environmental protection, corporate compliance style towards environmental regulation may change correspondingly. Several decades ago, the key focus of the government and whole society is on economic development. For business, industrial pollution control is mainly viewed as a total waste of money with no benefits. At this stage, the general compliance approach (if firms choose to comply) would be formalism-use the standardized tools and procedures to meet the regulatory requirement. After a period of rapid urbanization with shifting political and social consciousness on environmental protection, accommodative or mimicry compliance style will emerge. For instance, the relocation of a paper company (even though it is already in compliance) out of a downtown area in urban China is a good example in a transition from formalism to accommodation in this stage.

On the other hand, transitions between different complying styles may come from organizational changes. A referencing complying style, for instance, may not always yield satisfactory outcome, and errors produced during this process will be identified by decision makers over time. Thus, structural changes of the organization, such as the privatization of state-owned enterprises, might divert part of the original non-market capabilities from accommodating political demands to other issues. Moreover, with the growing need of reducing industrial pollution, legislation and policy will be further developed correspondingly.

It should also be noted that a single firm may have more than one CCS. Some firms may be able to attain their goal through use of a single approach, but others may need more. For instance, one firm might possess both formalism and accommodation compliance style simultaneously due to the overlap between formal and informal regulations. A combinative corporate political tactics has been demonstrated in prior studies (Schuler, Rehbein & Cramer, 2002). Secondly, CCSs are different from
corporate environmental strategies in two ways. First, CCS specifically implies regulated firms’ behavioral patterns under different institutional scenarios, while corporate environmental strategies are supposed to be properly crafted to manage environmental related issues. Second, CCS does not differentiate firms between “proactive” and “lagging behind” types in environmental protection.

Besides our focus on CCS dynamics in this study, many theoretical and empirical questions require further investigation. Firstly, empirical tests of the theories advanced here will be an important step. Meta analysis of existing research, in-depth case studies as well as longitudinal quantitative explorations could be employed to examine the evolutionary perspective of CCS. Furthermore, some of the most interesting questions extended for future research can be loosely grouped as follows:

**Generalization of CCS in Diversified Areas:** This framework may also be applicable in a wide array of regulatory domains, such as tax, workplace health and safety, product quality problems etc. In fact, learning from other policy settings may also facilitate different theoretical insights into this integrative model.

**Cross-Cultural CCS:** Rivera (2009) found an inverted U-shaped policy process–business response relationship proposed for the U.S. context, and further posited that this relationship could be moderated by variations in the level of democracy, system of interest representation, regulatory approach, and national income. Corporate compliance styles may vary a lot between different cultural contexts. MNCs are also likely to behave remarkably differently in different countries. For instance, in analyzing the green strategies of MNCs, Rugman and Verbeke (2000) found that some enterprises have developed internationally transferable green capabilities while others only have localized capabilities.

**Timing of adopting certain CCS:** firms can play a more active role in adopting different CCSs at different stages of policy implementation. In this research, we only provide a primary investigation of “when” is the appropriate timing for the adoption of CCS by integrating regulatory certainty into the model. Future study may
explore the optimal CCS at different stages of policy design and implementation. On the other hand, at different stages of business growth, organizations may employ different CCSs towards regulation. For instance, a new entrant to the industry may adopt formalistic CCS at the first beginning, before move to self-determinism that it is capable of.

**Conclusions**

In this research, we argue that firms need to maintain internally efficiency and seek external legitimacy. A diversity of corporate compliance styles exists as a result of different external and internal conditions. By developing a 2×2 conceptual model that embraces interactions between perceived regulatory certainty and nonmarket capabilities, we attempt to take a step forward to examine corporate compliance styles. Our framework may make several contributions to the existing literature of regulatory compliance and organizational studies. First, we present a comprehensive picture of how diversified organizational behavioral patterns coexist in the complying process. The four scenarios of corporate compliance style are not brand new since most of these approaches have been studied separately in both regulatory and organizational studies. A systematic framework to integrate them organically, nevertheless, is still in absence as far as we know. The second contribution of this paper is that we provide a better understanding of corporate compliance by utilizing a process perspective instead of the traditional motivation or performance based viewpoints. A conceptual framework for predicting the occurrence of alternative complying approaches has been developed, and it suggests that elements from regulatory perspectives and the resource-based view of the firm can be integrated into the framework to provide a comprehensive view of corporate compliance process. Third, this study will shed some light on future study on the dynamics of corporate regulatory compliance. As we discussed in previous section, evolving organizational responses to regulations deserve further attention in both regulatory and management research. The model developed in this paper mainly present a static picture of organizational behavioral patterns towards regulation. A longitudinal study may provide a comprehensive
investigation of evolutionary corporate compliance styles during a long period of time. Future research could also conduct quantitative investigations about how interactions between perceived regulatory certainty and non-market capabilities impact corporate compliance.

The practical contributions of this research are twofold. On the one hand, exploring the effect of both formal and informal regulation on corporate compliance styles may help environmental policy makers to further understand what kind of signals the current regulations and policy instruments are sending to polluting firms, which may help improve the policy design in the future. For instance, Hanson et al. (2008) found that uncertainty about industrial compliance is an important source of uncertainty for regulators when choosing regulatory instruments. On the other hand, it could also be helpful for regulated firms to make better compliance decisions under both external and internal constraints.
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